0544718

00567730

# Waste Site Reclassification Form

| | | |
|---|---|---|
| **Date Submitted**: 1/3/02 | **Operable Unit(s): 100FR-1** | **Control Number:** 2001-095 |
| **Originator: Mark Buckmaster** | **Waste Site ID**: 100-F-40 Animal Farm Surface Impoundment | RECEIVED MAR 2 2 2002 EDMC |
| **Phone**:509-521-2089 | **Type of Reclassification Action:** Rejected ■ Closed Out □ No Action □ | |

This form documents agreement among the parties listed below authorizing classification of the subject unit as rejected, closed out, or no action and authorizing backfill of the site, if appropriate. Final removal from the NPL of no action or closed-out sites will occur at a future date.

**Description of current waste site condition:**
(Summarize status of investigation/remediation of the waste sites.)

A recently discovered historical photo of the 100 F Area Experimental Animal Farm (EAF) indicates a liquid waste disposal pond. The waste site was designated as "100-F-40 Animal Farm Surface Impoundment". The current site is located in a open cobble field with no vegetation. No signs of the waste site are present on the ground surface. In April 2001, two test pits were excavated to locate and characterize this site. Details of the characterization activities are contained within the attached white paper.

**Basis for reclassification:**

Based on interviews from EAF workers and characterization data, the site received uncontaminated liquid waste from EAF operations. As a result, the 100-F-40 Animal Farm Surface Impoundment can be rejected within the WIDS.

| | | |
|---|---|---|
| Chris Smith<br>DOE Project Manager | Signature | 2/21/02<br>Date |
| N/A<br>Ecology Project Manager | Signature | Date |
| Dennis Faulk<br>EPA Project Manager | Signature | 2-28-02<br>Date |

100-F-40 Pothole/Sampling

## Results

Analytical data are attached in Appendix B. Sample number B11TW5 in test pit number 1 was collected in the reddish stained soil (see photo attachment A). Analytical data results were less than detectable, however the detection limit for $Cr^{+6}$ was 6.3 mg/kg. The laboratory indicated the high detection limit was based on interfaces from color leaching from the soil. The staining is a result of the animal waste (manure) in the soil. All other data indicates $Cr^{+6}$ below regulatory limits. In addition, a $Cr^{+6}$ leachate study was conducted at 100 F on concentrations up to 7.2 mg/kg. Results indicate no impact to groundwater. RESRAD modeling also indicates no impact to groundwater at levels higher than the nondetection limit. Results of the leachate study can be found in CVP-2001-00002, *Cleanup Verification Package for the 100-F-19:1 and 100-F-19:3 Reactor Cooling Water Effluent Pipelines, 100-F-34 Biology Facility French Drain, and 116-F-12 French Drain.* Data results from the remaining samples are below cleanup levels.

## Conclusion

The 100-F-40 Animal Farm Surface Impoundment received liquid waste as a result of EAF operations. Based on interviews from EAF workers and sample data, it can be concluded that the ponds received only uncontaminated waste as a result of cleaning animal pens.

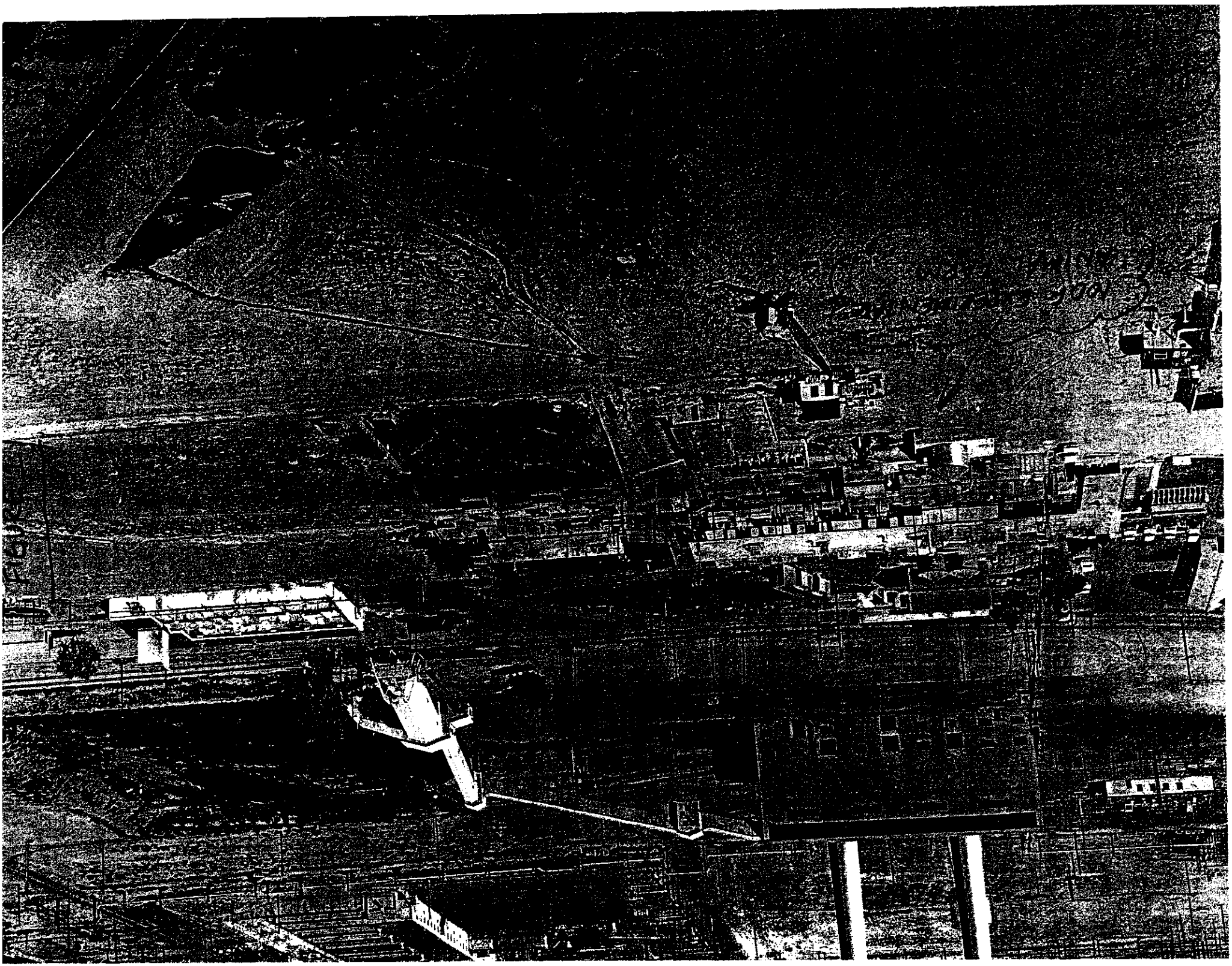
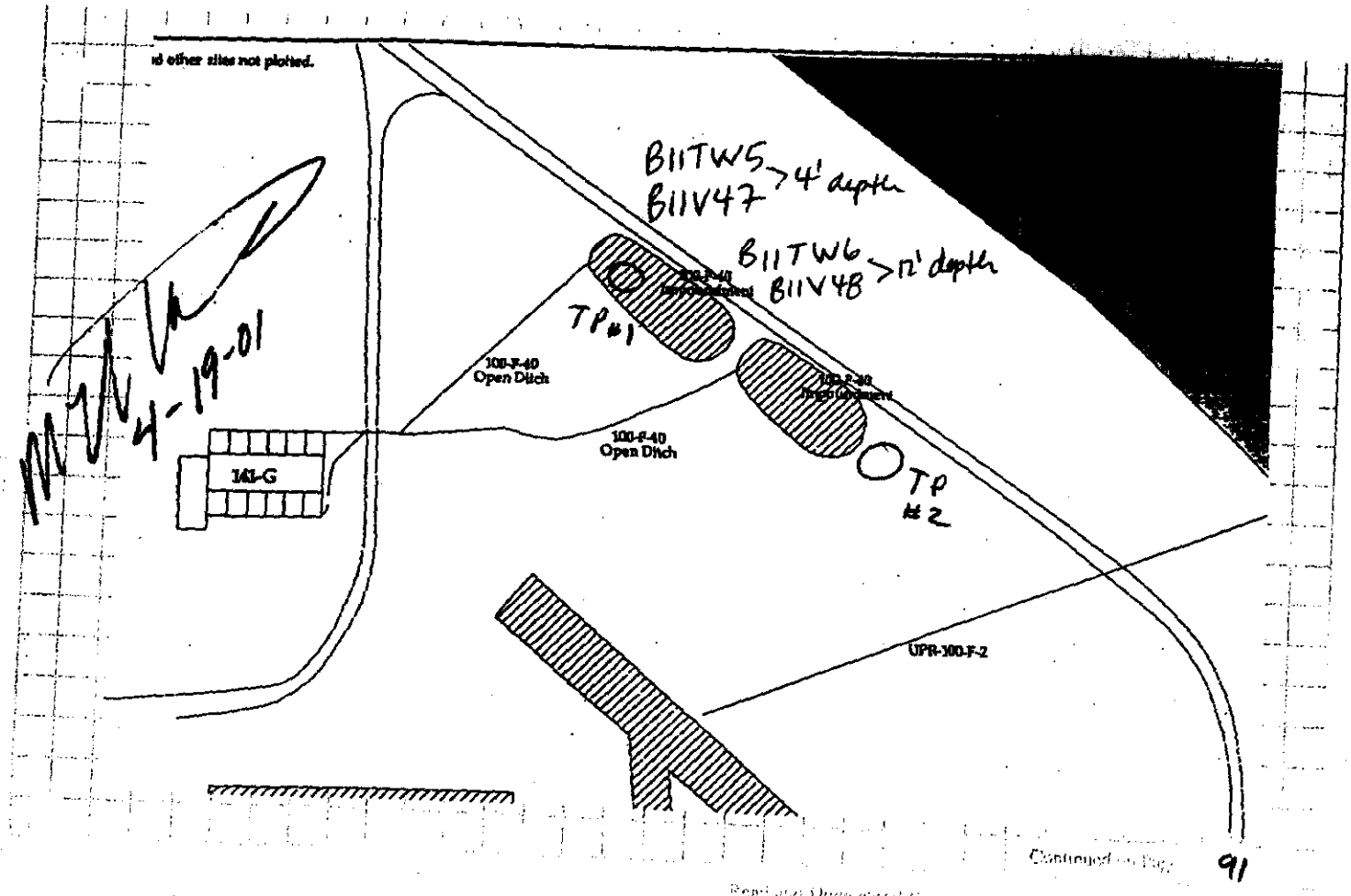


FIGURE 2.
100-F-40 TEST PIT LOCATIONS



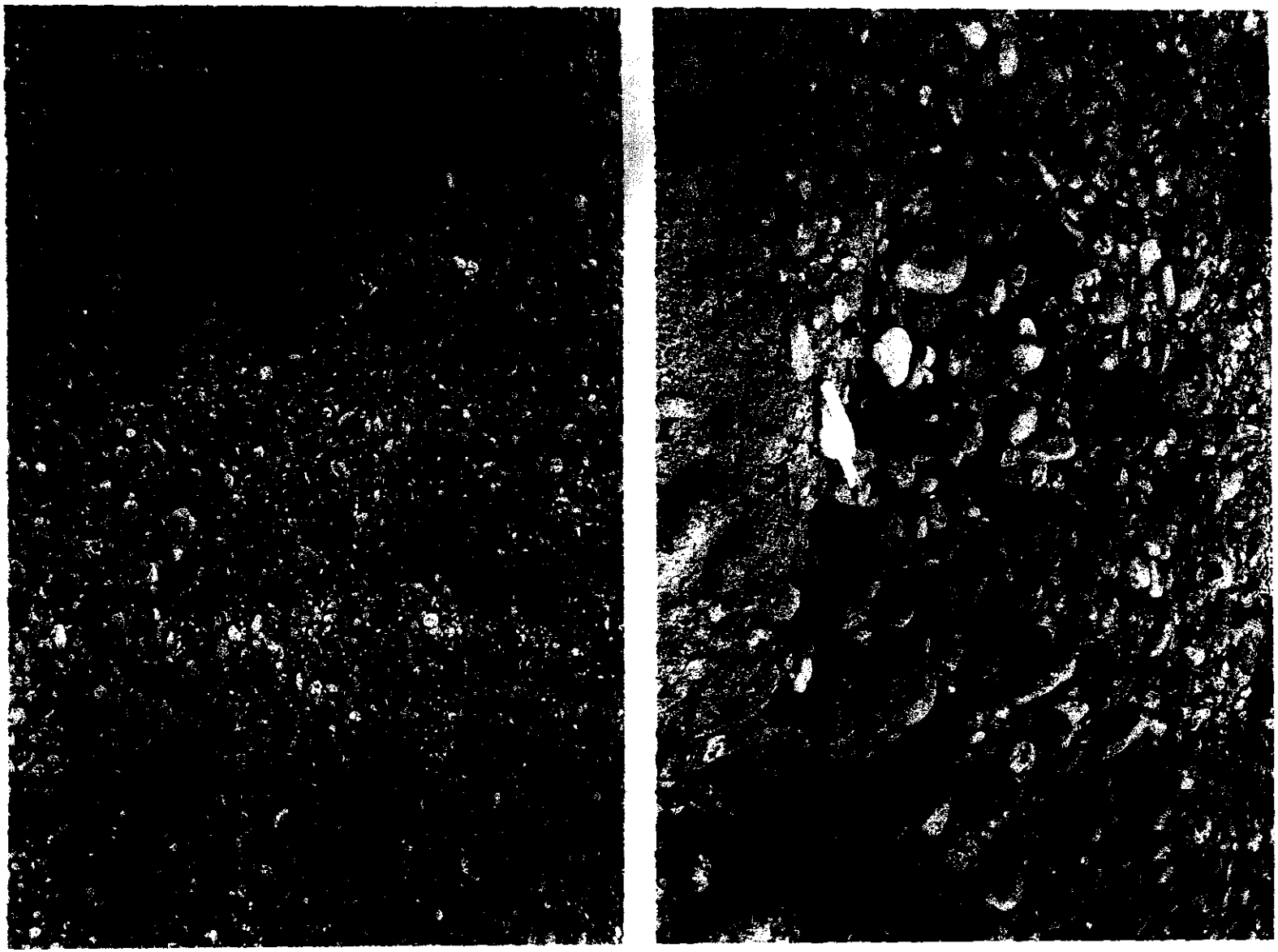

4-19-01

4-19-01

**Attachment A**

100-F-40 Pothole/Sampling

4. 19. 2001



**Attachment B**

# TMA / RICHMOND

**SAMPLE DELIVERY GROUP H1327**

R104153-03 B11V47

## DATA SHEET

| | | | |
|---|---|---|---|
| SDG | 7678 | Client/Case no | Hanford SDG H1327 |
| Contact | Melissa C. Mannion | Contract | No. 630 |
| Lab sample id | R104153-03 | Client sample id | B11V47 |
| Dept sample id | 7678-003 | Location/Matrix | 100-F-40 SOLID |
| Received | 04/26/01 | Collected | 04/19/01 13:20 |
| % solids | 89.4 | Custody/SAF No | B00-029-094 B00-029 |

| ANALYTE | CAS NO | RESULT pCi/g | 2σ ERR (COUNT) | MDA pCi/g | RDL pCi/g | QUALI-FIERS | TEST |
|---|---|---|---|---|---|---|---|
| Total Strontium | SR-RAD | 0.071 | 0.13 | 0.18 | 1.0 | U | SR |

100 F Area - Quick Turn

| | |
|---|---|
| Lab id | TMANC |
| Protocol | Hanford |
| Version | Ver 1.0 |
| Form | DVD-DS |
| Version | 3.06 |
| Report date | 05/11/01 |

# TMA / RICHMOND

**SAMPLE DELIVERY GROUP H1327**

R104153-04 B11V48

## DATA SHEET

| | | | |
|---|---|---|---|
| SDG | 7678 | Client/Case no | Hanford SDG H1327 |
| Contact | Melissa C. Mannion | Contract | No. 630 |
| Lab sample id | R104153-04 | Client sample id | B11V48 |
| Dept sample id | 7678-004 | Location/Matrix | 100-F-40 SOLID |
| Received | 04/26/01 | Collected | 04/19/01 14:05 |
| % solids | 70.1 | Custody/SAF No | B00-029-094 B00-029 |

| ANALYTE | CAS NO | RESULT pCi/g | 2σ ERR (COUNT) | MDA pCi/g | RDL pCi/g | QUALI-FIERS | TEST |
|---|---|---|---|---|---|---|---|
| Total Strontium | SR-RAD | 0.454 | 0.15 | 0.18 | 1.0 | J | SR |

100 F Area - Quick Turn

| | |
|---|---|
| Lab id | TMANC |
| Protocol | Hanford |
| Version | Ver 1.0 |
| Form | DVD-DS |
| Version | 3.06 |
| Report date | 05/11/01 |

Lionville Lababoyratory, Inc.

INORGANICS DATA SUMMARY REPORT 05/11/01

CLIENT: TNURANFORD E00-029 #1327
WORK ORDER: 11343-606-001-9999-00

LVL LOT #: 0104L613

| SAMPLE | SITE ID | ANALYTE | RESULT | UNITS | REPORTING LIMIT | DILUTION FACTOR |
|---|---|---|---|---|---|---|
| -001 | S11TW6 | % Solids | 61.4 | % | 0.01 | 1.0 |
| | | Chromium VI | 6.3 u | MG/KG | 6.3 | 10.0 |
| -002 | S11TW6 | % Solids | 91.7 | % | 0.01 | 1.0 |
| | | Chromium VI | 0.44 u | MG/KG | 0.44 | 1.0 |

# TMA / RICHMOND

**SAMPLE DELIVERY GROUP H1327**

R104153-01

B11TW5

## DATA SHEET

| | | | |
|---|---|---|---|
| SDG | 7678 | Client/Case no | Hanford SDG H1327 |
| Contact | Melissa C. Mannion | Contract | No. 630 |
| Lab sample id | R104153-01 | Client sample id | B11TW5 |
| Dept sample id | 7678-001 | Location/Matrix | 100-F-40 SOLID |
| Received | 04/26/01 | Collected | 04/19/01 13:40 |
| % solids | 87.2 | Custody/SAF No | B00-029-090 B00-029 |

| ANALYTE | CAS NO | RESULT pCi/g | 2σ ERR (COUNT) | MDA pCi/g | RDL pCi/g | QUALI-FIERS | TEST |
|---|---|---|---|---|---|---|---|
| Carbon 14 | 14762-75-5 | 0.136 | 2.6 | 4.3 | 50 | U | C |
| Total Strontium | SR-RAD | 0.105 | 0.13 | 0.17 | 1.0 | U | SR |
| Potassium 40 | 13966-00-2 | 14.7 | 3.4 | 1.8 | | | GAM |
| Cobalt 60 | 10198-40-0 | U | | 0.22 | 0.050 | U | GAM |
| Cesium 137 | 10045-97-3 | 0.245 | 0.20 | 0.23 | 0.10 | | GAM |
| Radium 226 | 13982-63-3 | 0.445 | 0.25 | 0.31 | 0.10 | | GAM |
| Radium 228 | 15262-20-1 | U | | 1.2 | 0.20 | U | GAM |
| Europium 152 | 14683-23-9 | U | | 0.44 | 0.10 | U | GAM |
| Europium 154 | 15585-10-1 | U | | 0.70 | 0.10 | U | GAM |
| Europium 155 | 14391-16-3 | U | | 0.41 | 0.10 | U | GAM |
| Thorium 228 | 14274-82-9 | 0.691 | 0.25 | 0.28 | | | GAM |
| Thorium 232 | TH-232 | U | | 1.2 | | U | GAM |
| Uranium 235 | 15117-96-1 | U | | 0.59 | | U | GAM |
| Uranium 238 | U-238 | U | | 21 | | U | GAM |
| Americium 241 | 14596-10-2 | U | | 0.42 | | U | GAM |

100 F Area - Quick Turn



| | |
|---|---|
| Lab id | TMANC |
| Protocol | Hanford |
| Version | Ver 1.0 |
| Form | DVD-DS |
| Version | 3.06 |
| Report date | 05/11/01 |

# TMA / RICHMOND

SAMPLE DELIVERY GROUP H1327

R104153-02

B11TW6

## DATA SHEET

| | | | | | |
|---|---|---|---|---|---|
| SDG | 7678 | Client/Case no | Hanford | SDG H1327 | |
| Contact | Melissa C. Mannion | Contract | No. 630 | | |
| Lab sample id | R104153-02 | Client sample id | B11TW6 | | |
| Dept sample id | 7678-002 | Location/Matrix | 100-F-40 | SOLID | |
| Received | 04/26/01 | Collected | 04/19/01 13:50 | | |
| % solids | 88.0 | Custody/SAF No | B00-029-090 | B00-029 | |

| ANALYTE | CAS NO | RESULT pCi/g | 2σ ERR (COUNT) | MDA pCi/g | RDL pCi/g | QUALI-FIERS | TEST |
|---|---|---|---|---|---|---|---|
| Carbon 14 | 14762-75-5 | -0.947 | 2.3 | 3.9 | 50 | U | C |
| Total Strontium | SR-RAD | 0.019 | 0.12 | 0.17 | 1.0 | U | SR |
| Potassium 40 | 13966-00-2 | 12.1 | 3.5 | 1.5 | | | GAM |
| Cobalt 60 | 10198-40-0 | U | | 0.11 | 0.050 | U | GAM |
| Cesium 137 | 10045-97-3 | U | | 0.11 | 0.10 | U | GAM |
| Radium 226 | 13982-63-3 | 0.445 | 0.22 | 0.23 | 0.10 | | GAM |
| Radium 228 | 15262-20-1 | 0.456 | 0.43 | 0.48 | 0.20 | U | GAM |
| Europium 152 | 14683-23-9 | U | | 0.30 | 0.10 | U | GAM |
| Europium 154 | 15585-10-1 | U | | 0.38 | 0.10 | U | GAM |
| Europium 155 | 14391-16-3 | U | | 0.23 | 0.10 | U | GAM |
| Thorium 228 | 14274-82-9 | 0.692 | 0.14 | 0.16 | | | GAM |
| Thorium 232 | TH-232 | 0.456 | 0.43 | 0.48 | | U | GAM |
| Uranium 235 | 15117-96-1 | U | | 0.48 | | U | GAM |
| Uranium 238 | U-238 | U | | 13 | | U | GAM |
| Americium 241 | 14596-10-2 | U | | 0.12 | | U | GAM |

100 F Area - Quick Turn

| | |
|---|---|
| Lab id | TMANC |
| Protocol | Hanford |
| Version | Ver 1.0 |
| Form | DVD-DS |
| Version | 3.06 |
| Report date | 05/11/01 |